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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

| EXAMINER | |
|---|---|
| PRENDERGAST, ROBERTA D | |
| ART UNIT | PAPER NUMBER |
| 2628 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/602,600 | IKEUCHI ET AL. | |
| | Examiner | Art Unit | |
| | Roberta Prendergast | 2628 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *17 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 October 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 11/17/2006 has been entered.

### *Drawings*

The drawings are objected to because Figs. 5 (A-C), 8 (A-D), 9 (A-E), and 10 (A-D) are unintelligible and Fig. 9D does not disclose colors of microfacets that correspond to numbers of the selected cameras found on page 23 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes

made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Color photographs and color drawings are not accepted unless a petition filed under 37 CFR 1.84(a)(2) is granted. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of the brief description of the drawings section of the specification:

> The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings and black and white photographs have been satisfied. See 37 CFR 1.84(b)(2).

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Independent claim 8 and dependent claims 9-13 are non-statutory as it is unclear how "...generating a third image by selecting texture images for respective microfacets from the plurality of first images on the basis of the plurality of photographing directions and view direction, and by projecting the selected texture images onto the microfacets..." provides a tangible result.

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result is "useful, tangible and concrete."

In addition, when the claim is not for a practical application that produces a useful result, the claim should be rejected, thus requiring the applicant to distinguish the claim from the three § 101 judicial exceptions to patentable subject matter by specifically reciting in the claim the practical application. In such cases, statements in the specification describing a practical application may not be sufficient to satisfy the requirements for section 101 with respect to the claimed invention.

The tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 5, 8, 9, 12, 14, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. U.S. Patent No. 6573912 in view of Dobashi, et al., "A simple, efficient method for realistic animation of clouds" Proc. of 27th Annual Conference on Computer Graphics and interactive Techniques, ACM Press/Addison-Wesley Publishing Co., New York, NY, pages 19-28.

Referring to claim 8, Suzuki et al. teaches an image processing method for generating an image from a predetermined view direction association with an object to be rendered, comprising: generating a plurality of first images obtained by photographing the object be rendered from a plurality of different directions (Figs. 1-4; column 1, lines 40-49; column 2, lines 30-37; column 7, lines 26-37 and 50-65; column 9, lines 58-66, i.e. first images are the initial video captured images), and a second image that pertains to geometry information of the object to be rendered (Figs. 1-4; column 1, lines 40-49; column 2, lines 37-45, i.e. second images are the silhouette images); generating a geometrical shape model of the object to be rendered on the basis of the second images (Figs. 1-4; column 1, lines 40-49; columns 2-3, lines 65-3; column 4, lines 15-20; columns 7-8, lines 65-8; column 8, lines 20-50; column 9, lines 32-45; columns 9-10, lines 58-10; column 10, lines 40-57, i.e. an intersection processor

feeds a voxel calculator in order to determine the volume); generating a plurality of microfacets used to approximate a shape of the geometrical shape model (column 3, lines 1-5, i.e. it is understood that microfacets are polygons and all voxels are evaluated to determine the object surface which is output as a triangle mesh model) and generating a third image by selecting texture images from the plurality of first images on the basis of the plurality of photographing directions and view direction, and projecting the selected texture images onto the microfacets (column 3, lines 42-52; column 10, lines 1-18, i.e. the background-subtracted real views and the voxel calculation (microfacets) are provided to each unique network client on demand and a novel view/third image is generated by projecting the real views onto the microfacets according to the perspective selected by the client) but does not specifically teach wherein the second image pertains to distance information of the object to be rendered, generating a plurality of microfacets three-dimensionally in such a way to approximate a three-dimensional shape of the geometrical shape model and executing a billboarding process that rotates the plurality of microfacets to make a predetermined angle with a view direction.

Dobashi et al. teaches wherein the second image pertains to distance information of the object to be rendered (page 23: Fig. 6; section 5.2.1 Rendering Clouds, 2nd paragraph, i.e. the texture corresponding to the nearest density of each meatball is mapped onto the corresponding billboard and the billboards are sorted based on their distances from the viewpoint indicating that the geometric information pertains to distance), generating a plurality of microfacets three-dimensionally in such a

way to approximate a shape of the geometrical shape model (page 23: Figs. 5 and 6; column 1, section 5.2.1 Rendering Clouds, 1st-3rd paragraphs, i.e. the texture images corresponding to the nearest density of each meatball is mapped onto the corresponding billboard and an image is calculated using a plurality of texture-mapped billboards indicating that a plurality of texture-mapped billboards have been generated) and executing a billboarding process that rotates the plurality of microfacets to make a predetermined angle with a view direction (page 23: Figs. 5 and 6; column 1, section 5.2.1 Rendering Clouds, 1st-3rd paragraphs, i.e. the plurality of texture-mapped billboards are oriented to the viewpoint and sorted based on their distances from the viewpoint, it is understood that orienting the billboards to the viewpoint requires rotating the plurality of billboards to make a predetermined angle with a view direction).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Suzuki et al. to include the teachings of Dobashi, et al. thereby providing a simple, easy-to-use, and computationally inexpensive method for creating realistic images using one of the standard graphics APIs, OpenGL thus making it possible to utilize graphics hardware, resulting in fast image generation (Dobashi, et al.; page 19: column 1, Abstract; column 2, section 1. Introduction, lines 5-9, 15-18, 29-32 and 37-50).

Referring to claim 9, the rationale for claim 8 is incorporated herein, Suzuki et al., as modified by Dobashi, et al. above, teaches a method according to claim 8, wherein the geometrical shape model is a voxel model formed of a plurality of voxels (Figs. 1-4; column 1, lines 40-49; columns 2-3, lines 65-3; column 4, lines 15-20; columns 7-8,

lines 65-8; column 8, lines 20-50; column 9, lines 32-45; columns 9-10, lines 58-10; column 10, lines 40-57), and the microfacets are generated for respective voxels (column 3, lines 1-5, i.e. it is understood that microfacets are polygons).

Referring to claim 12, the rationale for claim 8 is incorporated herein, Suzuki et al., as modified by Dobashi, et al. above, teaches a method according to claim 8, further comprising selecting at least two first images in ascending order of angle that the view direction and the plurality of photographing directions make, and generating an interpolated image on the basis of the at least two first images, and wherein in texture mapping, the texture images are selected for respective microfacets from the plurality of first images or the interpolated image on the basis of the plurality of photographing directions and view direction, and the selected texture images are projected onto the microfacets (Suzuki et al.; column 2, lines 30-37; column 3, lines 23-29 and 42-52; column 6, lines 35-46; column 7, lines 50-65; column 10, lines 45-65, i.e. either the background-subtracted real views or interpolated novel views are mapped to the microfacets according to the perspective chosen by the client).

Referring to claim 1, the rationale for claim 8 is incorporated herein, Suzuki et al., as modified by Dobashi, et al. above, teaches an image processing apparatus comprising a memory (Figs. 1(elements 118-120 and 126), 2(elements 208-210 and 220), 3(elements 308-310 and 320), and 4(elements 408-410 and 420); column 7, lines 26-37), a geometrical shape model generation unit (Figs. 1(element 130), 2(element 224), 3(element 324), and 4(element 424); column 7, lines 26-37), a microfacet generation unit (Figs. 1(element 130), 2(element 224), 3(element 324), and 4(element

424); column 3, lines 1-5), and a texture mapping unit (Figs. 1(elements 118-120 and 126), 2(elements 208-210 and 220), 3(elements 308-310 and 320), and 4(elements 408-410 and 420); column 7, lines 26-37) configured to perform the method of claim 8 but does not specifically teach a billboarding processing unit.

Dobashi, et al. teaches a billboarding processing unit (page 23: Figs. 5 and 6; section 5.2 Hardware-accelerated Rendering Using OpenGL; section 5.2.1 Rendering Clouds, 1st-3rd paragraphs, i.e. it is understood that utilizing graphics hardware to perform billboard processing requires that the graphics hardware include a billboarding processing unit).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Suzuki et al. to include the teachings of Dobashi, et al. thereby providing a simple, easy-to-use, and computationally inexpensive method for creating realistic images using one of the standard graphics APIs, OpenGL thus making it possible to utilize graphics hardware, resulting in fast image generation (Dobashi, et al.; page 19: column 1, Abstract; column 2, section 1. Introduction, lines 5-9, 15-18, 29-32 and 37-50).

Referring to claim 2, claim 2 recites the elements in claims 1 and 9 and therefore the rationale for the rejection of claims 1 and 9 are incorporated herein.

Referring to claim 5, the rationale for claims 1 and 12 are incorporated herein, Suzuki et al., as modified by Dobashi, et al. above, recites the elements in claims 1 and 12 and further teaches an interpolated image generation unit (Suzuki et al.; column 2, lines 30-37; column 3, lines 23-29 and 42-52; column 6, lines 35-46; column 7, lines 50-

65; column 10, lines 45-65, i.e. either the background-subtracted real views or interpolated novel views are mapped to the microfacets according to the perspective chosen by the client). It is inherent that an image processing apparatus capable of performing the method of claim 12 is comprised of an interpolated image generation unit for executing the method as described in claim 12.

Referring to claim 14, the rationale for claims 1 and 8 are incorporated herein, Suzu8ki et al., as modified by Dobashi, et al. above, teaches a computer program product configured to store program instructions for performing the method of claim 8 (Dobashi, et al.; page 19: Abstract, i.e. using one of the standard graphics APIs, OpenGL, indicates that computer program instructions are stored). It is inherent that graphics hardware capable of performing the method of claim 8 includes a computer system and a computer program product configured to store program instructions for executing the method as described in claim 8.

Referring to claim 15, claim 15 recites the elements in claims 14 and 9 and therefore the rationale for the rejection of claims 14 and 9 are incorporated herein.

Referring to claim 18, claim 18 recites the elements in claims 14 and 12 and therefore the rationale for the rejection of claims 14 and 12 are incorporated herein.

Claims 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. in view of Dobashi, et al. as applied to claims 12, 14, and 18 above, and further in view of Neugebauer, P.J., "Geometrical cloning of 3D objects via simultaneous registration of multiple range images", Shape Modeling and Applications,

1997. Proceedings, 1997 International Conference on 3-6 March 1997 Page(s)130 - 139.

Referring to claim 13, the rationale for claim 12 is incorporated herein, Suzuki et al., as modified by Dobashi, et al. above, teaches a method according to claim 12 further comprising appending geometry information each pixel of the plurality of first images and the interpolated image on the basis of the second images (Suzuki et al.: column 8,lines 40-50; column 9,lines 33-44; columns 9-10, lines 64-9, i.e. it is understood that voxel calculation entails appending geometry information, i.e. depth information from the second images, to each pixel) but does not specifically teach executing a clipping process of the plurality of first images on the basis of the geometry information of each pixel of each first image and the interpolated image, and a distance from a viewpoint to each voxel.

Neugebauer teaches executing a clipping process of the plurality of first images on the basis of the geometry information of each pixel of each first image and the interpolated image, and a distance from a viewpoint to each voxel (page 135, section 7 Visibility criterion, 1st and 2nd paragraphs; page 137, section 8.3. Direct rendering, Fig. 9).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Suzuki et al. to include the teachings of Dobashi, et al. and Neugebauer thereby providing a simple, easy-to-use, and computationally inexpensive method for creating realistic images using one of the standard graphics APIs, OpenGL thus making it possible to utilize graphics hardware,

resulting in fast image generation (Dobashi, et al.; page 19: column 1, Abstract; column 2, section 1. Introduction, lines 5-9, 15-18, 29-32 and 37-50) and further eliminating self-occlusion errors and making it possible to reconstruct concave and convex objects, and even objects with holes out of an arbitrary number of range images (Neugebauer: page 130, Introduction, 3rd paragraph).

Referring to claim 19, claim 19 recites the elements in claims 13, 14, and 18 and therefore the rationale for the rejection of claims 13, 14 and 18 are incorporated herein.

Claims 3, 10, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. in view of Dobashi, et al. as applied to claims 2, 9, and 15 above, and further in view of Ogata et al. U.S. Patent No. 6313841.

Referring to claim 10, the rationale for claim 9 is incorporated herein, Suzuki et al., as modified by Dobashi, et al. above, teaches a method according to claim 9, but does not specifically teach wherein the step of generating the geometrical shape mode includes the step of controlling the number of voxels be generated on the basis of precision of the second images.

Ogata et al. teaches wherein the step of generating the geometrical shape mode includes the step of controlling the number of voxels be generated on the basis of precision of the second images (Fig. 16; column 3, lines 10-28; column 10, lines 16-49, i.e. the dataset size is understood to be the number of voxels and is controlled by the level of detail, which is understood to be the precision of the second images).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as recited in claim 9 to include wherein the step of generating the geometrical shape mode includes the step of controlling the number of voxels be generated on the basis of precision of the second images thereby reducing the expensive computing costs due to processing large numbers of voxels (column 1, lines 18-27).

Referring to claim 3, claim 3 recites the elements in claims 2 and 10 and therefore the rationale for the rejection of claims 2 and 10 are incorporated herein.

Referring to claim 16, claim 16 recites the elements in claims 10 and 15 and therefore the rationale for the rejection of claims 10 and 15 are incorporated herein.

Claims 4, 6, 7, 11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. in view of Dobashi, et al. as applied to claims 2, 5, 9 and 15 above, and further in view of Gannett U.S. Patent No. 6118452.

Referring to claim 11, the rationale for claim 9 is incorporated herein, Suzuki et al., as modified by Dobashi, et al. above, teaches a method according to claim 9, further comprising appending geometry information to each pixel of the plurality of first images on the basis of the second images (column 9,lines 33-44; columns 9-10, lines 64-9, i.e. it is understood that voxel calculation entails appending geometry information, i.e. depth information from the second images, to each pixel), but does not specifically teach executing a clipping process of the plurality of first images on the basis of the geometry

information of each pixel of each first image and a distance from a viewpoint to each voxel.

Gannett teaches executing a clipping process of the plurality of first images on the basis of the geometry information of each pixel of each first image and a distance from a viewpoint to each voxel (column 7, lines 23-45; column 8, lines 34-38; column 9, lines 34-43; column 12, lines 34-51; columns 16-17, lines 55-13, i.e. voxels are eliminated based on a depth buffer test for performing hidden-surface elimination).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Suzuki et al. to include the teachings of Dobashi, et al. and Gannett thereby providing a simple, easy-to-use, and computationally inexpensive method for creating realistic images using one of the standard graphics APIs, OpenGL thus making it possible to utilize graphics hardware, resulting in fast image generation (Dobashi, et al.; page 19: column 1, Abstract; column 2, section 1. Introduction, lines 5-9, 15-18, 29-32 and 37-50) and further providing significant performance enhancements (Gannett: Abstract; columns 9-10, lines 60-13).

Referring to claim 4, the rationale for claim 11 is incorporated herein, Suzuki et al., as modified by Dobashi et al. and Gannett above, recites the elements in claims 1 and 11 but does not specifically teach a clipping process unit.

Gannett teaches a clipping processing unit (Figs. 1A, 1B(element 160) and 2; column 5, lines 8-19; column 7, lines 23-45; column 8, lines 34-38; column 9, lines 34-43; column 12, lines 34-51; columns 16-17, lines 55-13, i.e. voxels are eliminated based on a depth buffer test for performing hidden-surface elimination in processing stages

160-164 of a graphics pipeline indicating a clipping processing unit comprised of processing stages 160-164).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Suzuki et al. to include the teachings of Dobashi, et al. and Gannett thereby providing a simple, easy-to-use, and computationally inexpensive method for creating realistic images using one of the standard graphics APIs, OpenGL thus making it possible to utilize graphics hardware, resulting in fast image generation (Dobashi, et al.; page 19: column 1, Abstract; column 2, section 1. Introduction, lines 5-9, 15-18, 29-32 and 37-50) and further providing significant performance enhancements (Gannett: Abstract; columns 9-10, lines 60-13).

Referring to claim 17, claim 17 recites the elements of claims 4 and 15 and therefore the rationale for the rejection of claims 4 and 15 are incorporated herein.

Referring to claim 6, claim 6 recites the elements of claims 4 and 5 and therefore the rationale for the rejection of claims 4 and 5 are incorporated herein.

Referring to claim 7, claim 7 recites the elements of claim 4 and therefore the rationale for the rejection of claim 4 is incorporated herein.

***Response to Arguments***

Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues, with respect to the objection to the drawings, "...In the Office Action Figures 5A-C, 8A-D, 9A-E and 10A-D of the drawings were again objected to. In response to the objection asserting that Figures 5A-C, 8A-D, 9A-E and 10A-D are "unintelligible, it is noted that the response filed on October 27, 2005, included black and white photographs as new Figures 5A-C, 8A-D, 9A-E and 10A-D. If the present objection is being made as to these newly submitted black and white photographs as the new Figures 5A-C, 8A-D, 9A-E and 10A-D, an explanation as to what, specifically, is being objected to as being unintelligible in these black and white photographs is respectfully requested. In this regard and as noted in the response filed October 27, 2005, it is respectfully submitted that photographs are the only practical medium to intelligibly show features of the present invention, including the microfacets...".

Examiner respectfully submits that the petition to enter the black and white photographs submitted as new Figures 5A-C, 8A-D, 9A-E and 10A-D has not yet been approved and therefore the objection to the drawings, based on the originally filed drawings, will be maintained until such a time as the petition to enter the black and white photographs, filed 10/27/2005, has been approved.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta Prendergast whose telephone number is (571) 272-7647. The examiner can normally be reached on M-F 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RP 12/14/2006

ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER